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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,497

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Horst Kibbel

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EXAMINER

BERDICHEVSKY, MIRIAM

ART UNIT

PAPER NUMBER

4132

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,497	<b>Applicant(s)</b> KIBBEL ET AL.	
	<b>Examiner</b> MIRIAM BERDICHEVSKY	<b>Art Unit</b> 4132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2005, primary amendment.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/14/2005</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 13 is objected to because of the following informalities: the word 'and' is missing at the end of line 3. Appropriate correction is required.
2. Claim 14 is objected to because of the following informalities: the word 'is' should be inserted after the word 'carrier'. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13, 15, 17-19 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Damson (as cited in the IDS).

As to claims 13 and 26, the reference teaches a method for producing a bodywork part of a vehicle (32, body sheet, ¶ [0027]), comprising:

- Providing a metallic carrier (Mo layer, ¶ [0027]);
- Applying at least one thin film solar cell disposed on the carrier (30, ¶ [0027]);
- and
- Applying a transparent cover layer covering the at least one thin film solar cell (¶ [0029]); The Examiner notes that in order for the photoactive region to receive light and be operational the protective cover layer is clearly transparent. and

- Using the metallic carrier as an electrode of the thin film solar cell (§ [0027])  
(Figure 3).

Regarding claim 15, the reference teaches that the transparent cover layer is a coating layer (§ [0029]).

Regarding claim 17, the reference teaches that the thin film solar cell includes at least one of a CIS-, CIGS-, CIGSS-, CdTe-, and Si-based thin film solar cell (§ [0010]).

Regarding claim 18, the reference teaches that there is an intermediate layer disposed between the transparent cover layer and the thin film solar cell (§ [0028]).

Regarding claim 19, the reference teaches that the intermediate layer includes at least one of CdS or ZnSe (§ [0028]).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Damson as applied to claim 13 above in view of Nishiura (US 4609770).

Regarding claim 14, Damson is silent to the carrier being made of steel but teaches that the carrier is made of molybdenum. Applicant is directed to the above paragraphs for a complete discussion of Damson.

Nishiura teaches a thin film solar cell with a carrier made of steel, molybdenum and other high melting point metals suitable (column 1, lines 26-31).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the metal steel as the carrier in Damson since Nishiura teaches that steel is a known equivalent to molybdenum in the thin film solar cell art. Therefore, because these two metals are art recognized equivalents at the time of the invention, one of ordinary skill would have found it obvious to substitute steel for molybdenum, as only the expected results would have been achieved.

8. Claims 16 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damson as applied to claims 13 and 26 above in view of Van Andel (US 6184057).

Regarding claim 16, Damson is silent to the coating layer including a clearcoat. Applicant is directed to the above paragraphs for a complete discussion of Damson.

Van Andel teaches a coating layer including a clearcoat (column 4, lines 25-32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the clear coat of Van Andel in Damson because it would be obvious to choose a protective coating available and conventional to the automotive industry, as taught by Van Andel (column 4, lines 19-24).

9. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damson as applied to claim 13 above in view of Mimura (US 6311436).

Regarding claim 20, Damson is silent to a layer of Tefzel disposed between the transparent cover layer and the thin film solar cell. Applicant is directed above for a complete discussion of Damson.

Mimura teaches a layer of Tefzel disposed between the transparent cover layer and the thin film solar cell (column 10, lines 20-27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Tefzel between the transparent cover layer and the thin film solar cell in Damson because Tefzel improves moisture resistance and scratch resistance offering surface protection, as taught by Mimura (column 10, lines 18-20), especially in light of the fact that Damson teaches a protective layer but does not specify the material (14, ¶ [0021]).

Regarding claim 21, Damson teaches that the lower electrodes are formed from Mo ([0028]) but is silent to the upper electrodes being formed using ITO. Applicant is directed above for a complete discussion of Damson.

Mimura teaches the use of ITO as the upper electrode (column 9, lines 45-53 and lines 57-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use ITO in Damson because ITO is a conventional material used in the art of making electrodes for solar cells, as taught by Mimura (column 9, lines 57-59), especially since Damson teaches the use of an equivalent material (ZnO, ¶ [0028]).

Thus the choice of electrode material among conventional materials used in the art is simply a design choice.

Regarding claim 22, Damson teaches that the color layer (visually coordinated) is provided on a side of the thin film solar cell assigned to the transparent cover layer (paint layer) (¶ [0029]).

Regarding claim 23, Damson teaches that the color layer (visually coordinated) is formed by one of the transparent cover layer (paint layer) and the Tefzel layer (¶ [0029]).

10. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damson as applied to claim 13 above in view of Waterbury (US 3444946).

Regarding claim 24, Damson is silent to the carrier having a curved surface. Applicant is directed to the above paragraphs for a complete discussion of Damson. Waterbury teaches that the carrier is a curved surface (solar panel (30) on vehicle in Figures 7 and 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a curved surface in Damson because conventional vehicles have curved surfaces therefore it would be obvious for the roof on which the cell of Damson is placed to be curved, especially since Damson does not describe the vehicle but discusses the cell being flexible and fully integrated into the roof (¶ [0024] and ¶ [0027]).

Regarding claim 25, Damson teaches that the bodywork part is a vehicle roof (¶ [0027]).

***Correspondence/ Contact Information***

Art Unit: 4132

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MIRIAM BERDICHEVSKY** whose telephone number is (571)270-5256. The examiner can normally be reached on M-Th, 7:30am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Ward can be reached on (571) 272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B./  
Examiner, Art Unit 4132

/Jessica L. Ward/  
Supervisory Patent Examiner, Art Unit 4132